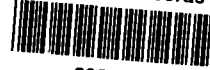


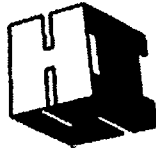
EPA Region 5 Records Ctr.



295919

HEALTH AND SAFETY PLAN
(Submitted by: HIS Constructors, LLC)

CONTRACTORS HEALTH AND SAFETY PLAN



**ENVIRO-CHEM SUPERFUND SITE
ATTACHMENT Z-1 REMEDY
985 SOUTH U.S. HIGHWAY 421
ZIONSVILLE, INDIANA**

Prepared for:

Environ International Corporation
740 Waukegan Road, Suite 401
Deerfield, IL 60015

Submitted by:

HIS Constructors, LLC.
5150 E 65th Street, Suite B
Indianapolis, IN 46220

December 17, 2007

Appendices

Appendix A – Site Plan: Figure 1

Appendix B – Directions and Map to the Hospital

Appendix C – Emergency Contacts Poster
General Contact List

Appendix D – Excavation/Trenching Log

Appendix E – Training Documentation

Instrument Calibration Log

Decontamination Log

Table 1 – Sample Job Site Safety Inspection Form

Table 2 – Sample Tailgate Safety Meeting

Table 3 – Hazard Information – Constituents of Concern

Appendix F – Substance Abuse Policy (Attachment No. 5)

Substance Abuse Implementation Procedure

MOHC Drug Screener Authorization

II. Project Description:

Initial project activities include site preparation activities, installing erosion control measures, i.e., silt fence, diversion berms, and etc. Site remedial activities include installation of an augmented SVE system with associated system upgrades and improvements. The installation of the designed PRGS system in accordance with the design specifications provided. Additionally, the excavated soils will be evaluated for disposition as to ex situ treatment, off-site disposal, burial on site, or use as a vegetative layer. Specified activities associated with this remediation will be completed in accordance with the contract documents.

2.1 Project / Site Organization

The following identifies the project organization and responsibilities:

Trust's Engineer:	Ronald Hutchens,
Oversight (Environmental):	Catherine Schrimsema, CH ₂ M Hill.
Operations Manager:	Brian Keeney, HIS Constructors, LLC
General Superintendent:	Jim Hawkins, HIS Constructors, LLC
Project/QAQC Manager:	Kieran Hosey, HIS Constructors, LLC (on-site)
Site Superintendent:	Fred Arvin, HIS Constructors, LLC (on-site)
Health & Safety Manager:	Ralph Hospodarsky, HIS Constructors, LLC
HIS Site Safety Officer:	Fred Arvin, HIS Constructors, LLC (on-site)

2.2 Organizational Responsibilities

Operations Manager

The Operations Manager's primary function is to oversee the management activities at the site to insuring that the scope of services required per the Contract is met. Additionally, the project manager manages the overall site activities in accordance with the Work Plan and this Health and Safety Plan (HASP) insuring these activities are carried out to the satisfaction of all the appropriate parties.

The project manager, if necessary, can modify the site-specific HASP, with concurrence with the Health and Safety Manager, to accommodate on-site changes that may effect safety.

safety concerns that will be encountered that day. During this meeting, site safety concerns and questions, by the field forces, can be directed to the Site Superintendent, or other team members that may be present at the meeting. Each worker will acknowledge their participation and understanding of the Health and Safety Plan and the Daily Huddle topic on a daily basis by signing a "Daily Huddle Form" topic sheet and acknowledgment form.

Oversight

CH₂M Hill will serve as the environmental oversight contractor for The USEPA. Representatives are identified in section 2.1 of this HASP.

Subcontractors

HIS Constructors, LLC will self-perform a many of the tasks on this project with its own forces. However, subcontractors may be utilized for various tasks such as for the following:

- Off-Site Trucking
- Bio-Polymer Usage
- Landscaping

III. Site Operations

3.1 Mobilization

HIS Constructors will mobilize equipment and personnel as soon as practicable following the receipt of the notice to proceed. Equipment and personnel utilization are based on the schedule of activities previously presented and efficient completion of the tasks being completed. All equipment will be received in good repair with lights, backup alarm, mirrors, and glass in place and operable. Work zones will be established upon arrival to prevent possible migration of contaminants to non-impacted areas of the site. HIS will provide an office trailer for storage and work activities.

3.2 Site Preparation

Site preparation consists of obtaining the necessary materials, equipment, supplies and facilities to provide for the safe and efficient work processes. This can include but is not limited to the following areas.

3.2.1 Security

Any visitor entering the site will be required to stop at the field office previously referenced. All visitors will have to sign in at the office. Persons new to the site will receive instruction regarding the health and safety aspects of the site. All visitors will be required to adhere to the health and safety requirements of the site and to provide their own safety equipment.

minimum, weekly, after storms events and as might be needed to provide optimal erosion control.

Straw dams and sediment filters will be installed as required to prevent sediment from leaving the work area. The straw bales will be inspected and maintained on the same sequence as the silt fence. Deteriorating or damaged check dams or sediment filters will be repaired or replaced as needed.

Storm water intrusion into excavations will be minimized through the use of diversion berms placed around excavation areas, at the discretion of HIS. The diversion berms will be constructed of excavated materials or straw, and will be strategically placed to direct the storm water away from the excavation area. The berms will have sufficient cross section to prevent washout of the berm. The berms will be inspected in the same manner as the silt fence and dams.

3.2.4 Clearing and Grubbing

Clearing and grubbing is will be accomplished in accordance with the plans and specifications.

IV. Excavation / Trenching

Excavation and trenching will occur as part of the pipe installation, including the removal of impacted soil, and debris. Prior to any excavation activities the site superintendent will contact "Indiana Underground Plant Protection Services"(1-800-382-5544) to locate any existing utilities located within the work areas. This notification will occur a minimum of 48 hours prior to any excavation activities commencing. Excavation and trenching activities will be accomplished in accordance with 29CFR Part 1926 Subpart P and HIS's standard operating procedures (SOPs). Additionally, the excavation activities within the exclusion zone will be accomplished in accordance with 29 CFR 1910.120 until a suitable barrier is present between any hazardous waste and the site personnel.

HIS's general superintendent and HIS's site superintendent are the designated competent persons for excavation and trenching. They will conduct, at a minimum, daily inspections of the excavation areas. Changes in the excavation area soils will result in a re-evaluation of the excavation procedures and methods. The designated competent person must re-inspect the excavation and modify the procedures and processes in accordance with appropriate safety practices for the soil type being encountered. The designated competent person shall complete an excavation log every time a re-inspection occurs and conditions have changed.

HIS will provided PPE and environmental monitoring as described later in this HASP. All persons working with in this area will have received appropriate training in accordance with 29 CFR 1910.120. (40 Hour HAZWOPER training and appropriate 8 hour refresher training) Entry into the exclusion zone will be through

Equipment that was utilized within and exclusion area, will have passed through the contamination reduction zone and been decontaminated in accordance with the decontamination procedures contained in section 4.4.2 of this Health and Safety Plan. Decontamination procedure will be monitored by the SSO. Equipment decontamination will be documented by the SSO and the Site Superintendent. A decontamination log will be completed prior to that equipment leaving the site (Appendix E).

IX. Site Specific Safety Requirements

9.1 Hazard Analysis

Specific activities are specified with this construction project and with each activity potential hazards are associated. Each activity must be analyzed for its associated potential hazard. Once the specific activity hazards are identified methods to minimize or eliminate the risk can be implemented. Site activities will be conducted in accordance with the HIS's Health and Safety Program, this shall be the responsibility of the SSO and Site Superintendent.

TASK	HAZARD	ACTION	PPE
All Tasks	Heat Stress	Drink Plenty of Water, Take Adequate Breaks	Level C*/ Level D
All Tasks	Cold Stress	Dress in Layers, Remove Layers as Required	Level C*/ Level D
All Tasks	Insects, Bees, Wasps	Be Aware of Activity in Work Area	Level C*/ Level D
All Tasks	Slip, Trip, and Falls	Remove Snow and Ice, Clear Pathways, Housekeeping	Level C*/ Level D
Site Supervision	Slip, Trip, and Fall	Housekeeping, Clear Pathways	Level C*/ Level D
Site Supervision	Equipment/Vehicle Operation	Only Authorized Personnel.	Level C*/ Level D
Excavation	Soil Stability	Competent Person Inspection and Cave-in or soil retention methods used	Level C*/ Level D
Excavation	Heavy Equipment	Qualified Operator	Level C*/ Level D
Excavation	Slip Trip and Fall	Only Necessary People At Work Area, House keeping maintained	Level C*/ Level D
Excavation	Dirt Collapse	No Personnel in Trench or Bench/Slope; all personnel maintain 2 foot clearance around excavation	Level C*/ Level D
Excavation	Moving Equipment	Qualified Operator, Backup Alarms, Operator Communication, Hi-Visibility Wear	Level C*/ Level D
Dewatering Excavation	Slip Trip and Fall	Only Necessary People At Work Area, House keeping maintained	Level C*/ Level D
Dewatering Excavation	Chemical Contamination and Physical Hazards	Dust Control, Water Area, and Ambient Air Monitoring	Level C*/ Level D Modified

9.2 Hazard Control and Monitoring

Activity hazard analysis is utilized to identify the hazards associated with the various tasks that are performed in conjunction with the project. During the course of the project the various tasks can change and as such the potential hazards may change. This Health and Safety Plan is a dynamic document and subject to adjustment as the project change.

The remedial areas identified in the contact documents contain a mixture of various surficial and subsurface materials some of which will contain hazardous substances. Due to the nature of this work activities (intrusive activities) conducted within the exclusion zone area will be accomplished in accordance with the requirements of 29 CFR 1910.120 (HAZWOPER). The remedial areas will be treated as an exclusion zone by establishing an orange construction fence barrier to prevent unauthorized entrance into the area during hazardous waste operations. The parts of this HASP associated with HAZWOPER apply only to the activities associated with hazardous waste. HAZWOPER requirements do not apply to activities accomplished after the sub-grade layer is installed or exposure monitoring has documented the absence of exposure to hazardous components and the site is downgraded in accordance with this HASP.

9.2.1 Work Zones

The tasks associated with this project and the classification of hazardous waste areas require that appropriate work zones be established. The work zones provide for the segregation of the activities and the associated hazards. In accordance with 29 CFR 1910.10, site control will be established through the use of work zones. Parts of the site where no hazardous substance risks are present will be the Support Zone. The hazardous waste area is the Exclusion Zone and is separated from the rest of the site by an orange construction fence. Entry into the hazardous waste area is accomplished through the use of a special corridor (Contamination Reduction Zone) where equipment and personnel are decontaminated prior to leaving the hazardous waste area. Eating of food, consumption of water or other appropriate liquids may only be accomplished in the support zone and in designated areas. Smoking will not be permitted except in areas designated by the site safety officer.

Support Zone: The Support Zone, when properly staged, provides the basis of operation for the other work zones previously identified. Due to its interface with the surrounding community the Support Zone is designed to be contaminant free, therefore PPE are not required.

Contamination Reduction Zone: The Contamination Reduction Zone (CRZ) is the designated area where contamination present on the workers and equipment is removed. For the purposes of this project the personnel CRZ will consist of boot wash, face and hand wash with trash containers to receive

D protection will consist of a minimum of hardhat, safety boot, safety glasses, and leather gloves. Chemical resistant coveralls, gloves, and boots are required whenever contact with impacted soils or materials is possible. Additional levels of protections may be required and are identified in this HASP.

9.2.2 Personal Protective Equipment (PPE)

Protective Equipment Needed

- Work Uniform
- Leather gloves
- Chemical resistant gloves during level C and when contact with impacted materials and soils
- Steel Toed Shoes/Boots
- Chemical resistant over boot during level C and when contact with impacted materials and soils
- Safety Glasses
- Hard Hat
- Flame Resistant Coverall
- Tyvek Coveralls (required during level C and when contact with impacted materials and soils: optional at level D)
- Full Face Air Purifying Respirator with Chemical Cartridge and HEPA Filter during level C

Protective Equipment Levels

The following is a brief description of the personal protective equipment, which may be required during various phases of the project. Although there is some flexibility to custom fit the actual items of protective equipment to the real-life situation, in general the levels of protection are defined as follows:

Level A – The highest level of protection used when:

1. Unknown chemicals are involved and there is a high risk for chemical release.
2. Chemical concentrations are known to be above the safe levels (IDLH atmospheres).
3. Extremely hazardous substances are present or suspected.
4. Chemicals and/or vapor and mists are destructive to tissue.
5. Oxygen deficient atmospheres or confined space conditions.

	Chemical-resistant boots over steel-toed safety boot. *
	Hardhat.
	Safety glasses, goggles, or face shield as necessary.
Level D	Steel-toed safety boots.
	Safety glasses or splash goggles.
	Hardhat.
	Latex or Nitrile Gloves as necessary.
	Flame Resistant uniform or coveralls.
	Coveralls (Modified Level D) (Tyvek or equivalent)

* Not required for ground water sampling activities during cold weather when potential for frostbite exist.

9.2.3 Environmental Monitoring

Dust can be expected during any construction project and must be controlled. HIS will make every effort to minimize dust throughout the project. HIS will monitor for dust control by visually observation. The observance of any visible dust that could potentially leave the construction site or interferes with work activities will result in the application of water to the dust source. A water source will be utilized to apply the water to insure dust is controlled on roadways and work areas.

Additional, environmental surveillance shall be conducted within the remedial site during excavation and grading activities. HIS will conduct the surveillance monitoring utilizing the equipment identified below. HIS will utilize a PID to monitor the breathing zone during the excavation and loading of materials. Monitoring will be accomplished prior to any work commencing and periodically during the remedial activities. Any sustained indication of photoionizable vapors (5 minutes) PID reading of 10ppm will require the use of color-o-metric tubes for Vinyl Chloride, Trichloroethane, and Benzene (Drager Tubes or equal). Any constituent of concern that can't be detected by the PID will be monitored using color-o-metric tubes. Any exposure greater then the PEL for either of these chemicals will result in an upgrade of the PPE. Protections levels will be dependent on the levels encountered. Sustained PID reading ≥ 50 will result in up grading of the PPE protection level from Level D to Level C. A sustained PID reading of 100 PPM will result in work stoppage and personnel leaving the area to re-evaluate methods to control exposure. HIS will additionally monitor Oxygen, Hydrogen Sulfide, Carbon Monoxide, and LEL at the work area. LEL levels exceeding 10 %, O₂ levels outside the range of 19.5%-23.5%, H₂S greater then 10 ppm, or CO levels greater then 25 PPM will result in work being stopped to evaluate the cause of the variance.

employment, on an annual basis and at termination of employment as specified by 29 CFR 1910.134 and 29 CFR 1910.120.

All employees involved in hazardous waste activities must be medically fit to wear respiratory protection as required in OSHA Respiratory Protection Standard (29 CFR 1910.134) and Hazardous Waste Emergency Response Operations Standard (HAZWOPER) (29 CFR 1910.120). All on-site personnel must provide certification to assure medical fitness with OSHA respiratory protection protocol and respiratory fit testing (qualitative or quantitative).

In addition, all on-site personnel must be actively involved in a comprehensive medical surveillance program as required in HAZWOPER Standard (29 CFR 1910.120) to ensure physical capabilities.

The HIS medical surveillance program includes the following examinations:

- Physical Examination – During this physical examination, the physician considers the individual's capability to wear respiratory protection. Pulmonary function, cardiovascular status and weight carrying capacities are evaluated. Ability to detect odors is also to be included. A licensed Occupational Physician performs the examination. The physician provides a written certification that each employee is medically fit to wear respiratory protection. Additional testing protocol include:
- Audiogram
- Wellness blood profile – including complete blood count (CBC), SMAC-24, coronary risk profile.
- Spirometry
- Respirator certification (by examining physician)
- Titmus and Snellen Vision Screen
- Methemoglobin
- Microurinalysis
- Physician's written medical opinion

Special Medical Considerations

- Certain prescription drugs may affect an individual's ability to work in temperature extreme conditions. The physician should note special limited capabilities under these conditions.
- The purpose of the site Health and Safety Plan is to prevent worker exposure. Biological monitoring activities measure the amount of a specific chemical or its metabolite, which is excreted from the body. Examples include phenol monitoring in urine for benzene exposures, lead in the blood, chlorinated hydrocarbon solvents in exhaled breath, etc.
- Air monitoring will be completed in accordance with section 9.2 of this HASP

12.2 Equipment Decontamination

Equipment and non-disposable materials that come into contact with the impacted material (e.g., excavator tracks) will be decontaminated as follows:

- Earthen materials will be scraped and removed from the equipment.
- Visual clean will be the benchmark for decontaminated equipment.
- Complete Decontamination Log

Soils generated during the decontamination process will be properly transported and disposed with other impacted soils. Following the initial site grading and the placement of the sub-grade further decontamination will not be needed unless work activities are intrusive into the landfill.

XIII Emergency Response / Contingency Plan

13.1 Pre-Emergency Planning

Prior to the start of field activities, the Site Superintendent, and/or the Health and Safety Manager will perform the following pre-planning tasks:

- Locate and inspect onsite communications equipment.
- Identify any chemical, safety, or biological hazards.
- Validate and post emergency telephone numbers and a map of the route to designated hospital.
- Inventory site safety equipment and supplies and post location.
- Review emergency response plan for any necessary changes due to specific site conditions.
- Drive the planned route to the designated hospital.
- Identify and designate a specific vehicle as the emergency vehicle.
- Review and post names of site personnel that are first aid and CPR trained.
- Verify telephone numbers and key contacts of local emergency service providers.
- Position air horns at strategic locations to alert site personnel of emergencies.
- Brief and train site personnel on the emergency response plan.

13.2 Emergency Medical Assistance and First Aid Equipment

Prior to the start of field activities, the Project Manager, General Superintendent and SSO will discuss the emergency procedures to be used onsite with all personnel. On-site personnel will use the following standard emergency procedures. The Project Manager and General Superintendent shall be notified of any on-site emergencies and will be responsible for

- 2) The hazards have been reassessed.
- 3) The Health and Safety Plan has been reviewed.
- 4) Site personnel have been briefed on any changes in the Health and Safety Plan.

I. General Chemical First Aid Procedures:

1) Inhalation

- a) Remove victim to fresh air.
- b) Give artificial respiration if the person is not breathing and seek medical attention.

NOTE: Do not enter confined space or spill area without proper protection.

2) Eye Contact

- a) Flush immediately with large amounts of water for at least 15 minutes, while holding eyelids open.
- b) Get medical attention promptly after flushing eyes with water.

NOTE: Flushing for 30 minutes is recommended if contact with strong alkalis occur (caustic soda – sodium hydroxide)

3) Skin Contact

Flush affected area with large amounts of water while removing contaminated clothing.

- a) Flush for 15 minutes if contact with concentrated chemical.
- b) If irritation persists, get medical attention.
- c) Wash contaminated clothing before reuse.

NOTE: Clean and potable water tanks will be available at all times on site for decontamination and washing.

4) Ingestion

- a) The decision whether to induce vomiting is chemical-specific
- b) Do not induce vomiting without first contacting the MSDS Poison Control Center or local emergency room for instructions. The MSDS may have specific instructions.
- c) In some cases, vomiting will cause additional damage, so the use of an antidote is sometimes appropriate.
- d) If vomiting occurs uncontrollably, keep head below hips to prevent vomit from getting into lungs.
- e) Never induce vomiting or give anything by mouth to an unconscious person.
- f) Get medical attention as soon as possible.

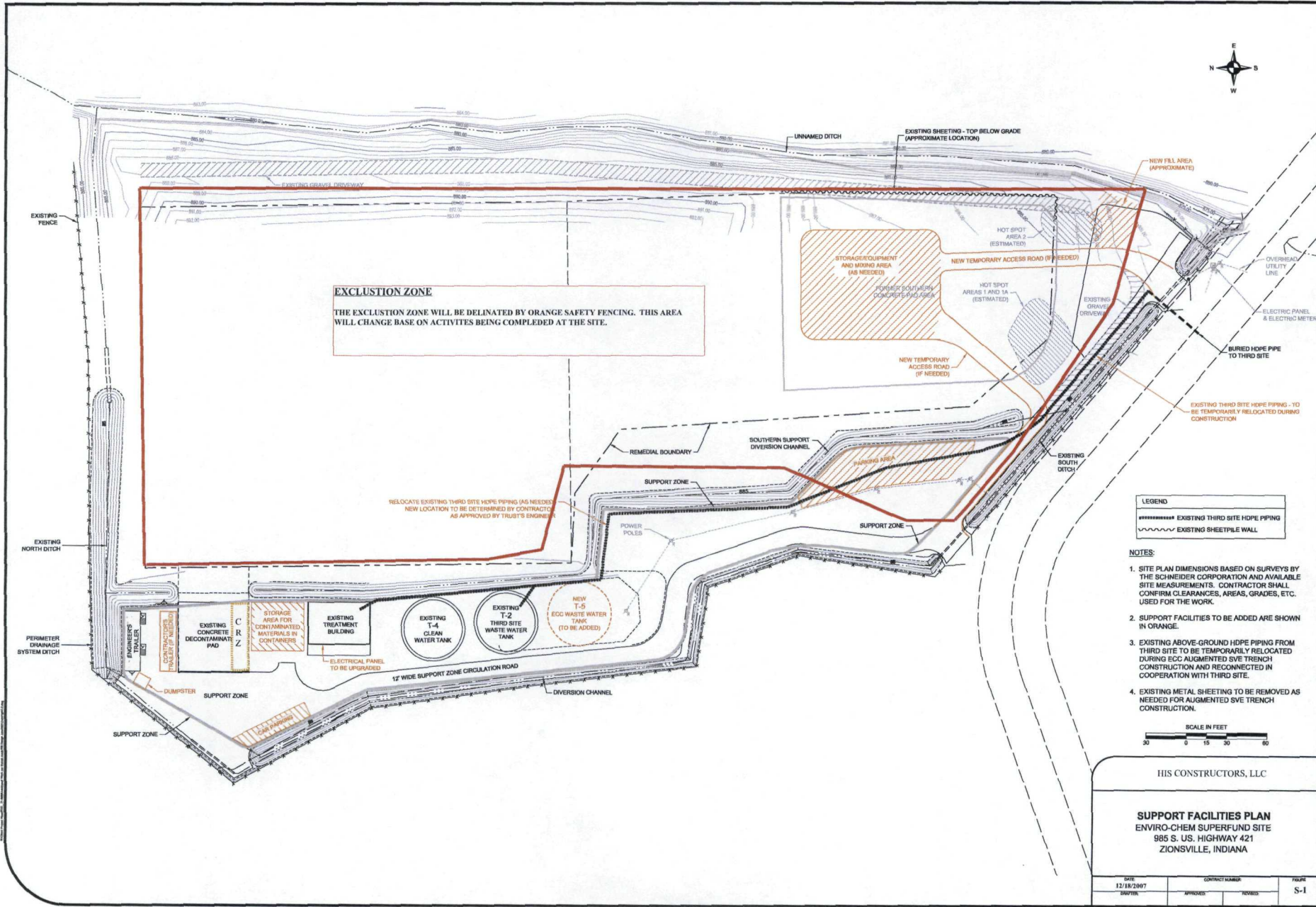
the Hazard Communication. The Site Superintendent shall maintain copies of the Health and Safety Manuals on the site and ensure compliance with the SOPs.

XV. Inspections and Record Keeping

Inspections shall be made in accordance with federal, state, and local safety regulations as well as the applicable standard operating procedure contained in the Health and Safety Manual that is discussed in XIV of this Health and Safety Plan. Personnel working on the site will have received training in accordance with 29 CFR 1910.120 with documents maintained on the site demonstrating such training and current refresher.

APPENDIX A

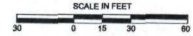
Site Plan



EXCLUSION ZONE
THE EXCLUSION ZONE WILL BE DELINEATED BY ORANGE SAFETY FENCING. THIS AREA WILL CHANGE BASE ON ACTIVITES BEING COMPLETED AT THE SITE.

LEGEND	
-----	EXISTING THIRD SITE HOPE PIPING
~~~~~	EXISTING SHEETPILE WALL

- NOTES:**
1. SITE PLAN DIMENSIONS BASED ON SURVEYS BY THE SCHNEIDER CORPORATION AND AVAILABLE SITE MEASUREMENTS. CONTRACTOR SHALL CONFIRM CLEARANCES, AREAS, GRADES, ETC. USED FOR THE WORK.
  2. SUPPORT FACILITIES TO BE ADDED ARE SHOWN IN ORANGE.
  3. EXISTING ABOVE-GROUND HOPE PIPING FROM THIRD SITE TO BE TEMPORARILY RELOCATED DURING ECC AUGMENTED SVE TRENCH CONSTRUCTION AND RECONNECTED IN COOPERATION WITH THIRD SITE.
  4. EXISTING METAL SHEETING TO BE REMOVED AS NEEDED FOR AUGMENTED SVE TRENCH CONSTRUCTION.



HIS CONSTRUCTORS, LLC

**SUPPORT FACILITIES PLAN**  
ENVIRO-CHEM SUPERFUND SITE  
985 S. U.S. HIGHWAY 421  
ZIONSVILLE, INDIANA

DATE 12/18/2007	CONTRACT NUMBER	SHEET S-1
DRAWN	APPROVED	REVISIONS



**Appendix B**  
**Directions to Hospital**



**Start:** 985 S Us Highway 421  
Zionsville, IN 46077-8829, US

**End:** Witham Memorial Hospital:  
765-482-2700  
2605 N Lebanon St, Lebanon, IN  
46052, US

**Notes:**

Only text visible within note field will print.



**Directions**

**Distance**

**Total Est. Time:** 21 minutes **Total Est. Distance:** 13.04 miles



**1:** Start out going NORTH on US-421 toward E TAYLOR AVE / TAYLOR RD. 1.0 miles



**2:** Turn LEFT onto IN-32 / E IN-32. Continue to follow IN-32. 8.9 miles



**3:** Keep RIGHT at the fork to continue on IN-32. 0.7 miles



**4:** Stay STRAIGHT to go onto IN-32 / INDIANAPOLIS AVE. <0.1 miles



**5:** Turn LEFT onto IN-32. 0.2 miles



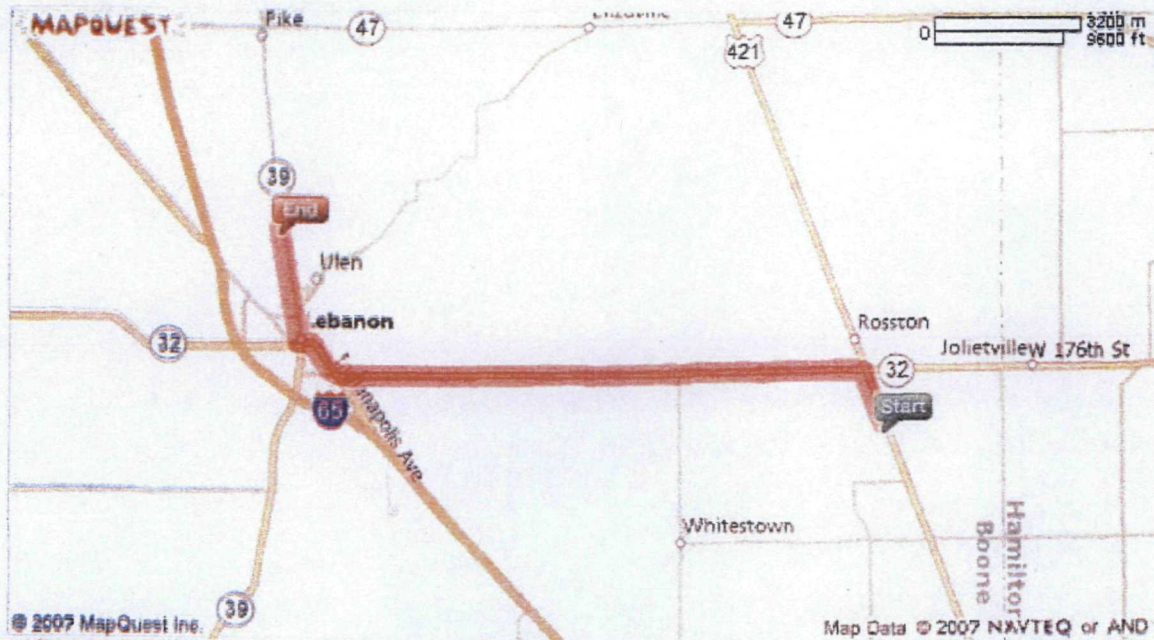
**6:** Turn RIGHT onto N LEBANON ST / IN-39 / N IN-39. Continue to follow IN-39 / N IN-39. 2.0 miles



**7:** End at **Witham Memorial Hospital:**  
2605 N Lebanon St, Lebanon, IN 46052, US

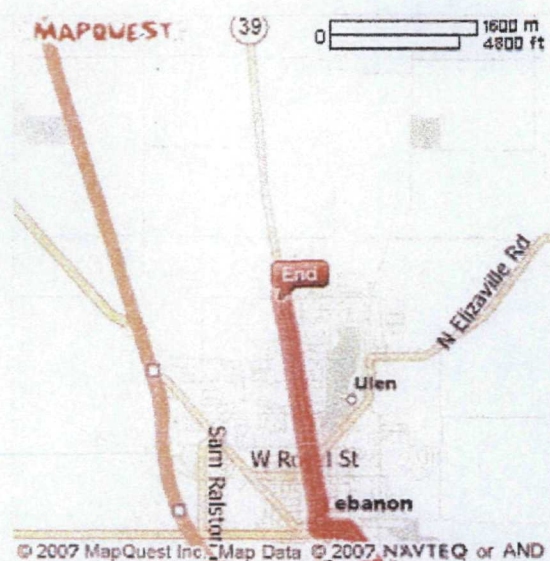
**Total Est. Time:** 21 minutes **Total Est. Distance:** 13.04 miles





**Start:**  
**985 S Us Highway 421**  
Zionsville, IN 46077-8829, US

**End:**  
**Witham Memorial Hospital:**  
765-482-2700  
2605 N Lebanon St, Lebanon, IN 46052,  
US



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These directions are informational only. No representation is made or warranty given as to their content, road conditions or route usability or expeditiousness. User assumes all risk of use. MapQuest and its suppliers assume no responsibility for any loss or delay resulting from such use.





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Delivering Care, Saving Lives, and Healing  
Our Mission, Our Community Role, Our Passion

[Who We Are](#) | [Primary Care](#) | [Services](#) | [Foundation](#) | [Employment](#)



## Emergency Services

### Location

Witham Emergency Services is located in Witham Hospital on the Witham Health Services Medical Campus. The campus is on North Lebanon Street (State Road 39).

[Search Witham.org](#)

### Services

[Emergency Services](#)  
[Physicians](#)  
[Location](#)

[Allergy and Sinus Center](#)  
[Cancer Institute](#)  
[Eye Institute](#)  
[GI Institute](#)  
[Hospice Care](#)  
[Maternity Center](#)  
[Occupational Health](#)  
[Pulmonology / Sleep Lab](#)  
[Rehabilitation Services](#)  
[Toxicology Laboratory](#)  
[Transitions For Seniors](#)



**Witham  
Emergency  
Services**  
2605 N.  
Lebanon  
Street  
Lebanon,  
IN 46052  
(765) 485-  
8500



[Health Library](#)  
[Krames Online](#)

[Physician Directory](#)

[Online Nursery](#)

[Witham Kids](#)

[Events Calendar](#)

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**Appendix C**  
**Emergency Contacts**

## EMERGENCY INFORMATION

LOCATION:

EMERGENCY CONTACTS:

Environ (Trust's Engineer)	Ronald Hutchens	Work Phone: 847-444-9200 Mobile Phone: 847-414-7037
PRP Member:	Norman Bernsein	Work Phone: 914-358-3500 Mobile Phone: 646-413-8992
Operations Manager: (off-site)	Brian Keeney	Work Phone: 317-541-9290 Mobile Phone: 317-695-0425
General Superintendent:	Jim Hawkins	Work Phone: 317-541-9290 Mobile Phone: 317-409-2107
Site Superintendent & Health and Safety Officer:	Fred Arvin	Work Phone: 317-541-9290 Mobile Phone: 317-695-1734
Health & Safety Manager:	Ralph Hospodarsky	Work Phone: 317- 541-9290 Mobile Phone: 317-695-2992

MEDICAL EMERGENCY:           911          

FIRE EMERGENCY:           911          

POISON CONTROL CENTER: (800) 222-1222

### EMERGENCY ALARM SYSTEM:

**Fire:** 3 short blasts, pause, 3 short blasts. Evacuate the site if instructed to do so by the site Health & Safety Officer. If you are instructed to leave the site, a field expedient decontamination procedure will need to take place. See the Decontamination Procedures Section for more details.

**Tornado:** One long blast. In the event of a tornado emergency, stop work and proceed to the nearest shelter. If you do not have time to seek shelter in the designated location find shelter in a ditch, gully or low spot in the ground. Culverts offer better shelter. Avoid seeking shelter in or under vehicles, mobile homes/office trailers or near trees.

**All Clear:** A Loudspeaker shall be utilized to inform all personnel that the emergency situation is under control and that they are released to return to work.

EMERGENCY MUSTER AREA: HIS OFFICE TRAILER

**Appendix D**  
**Excavation /Trenching Log**

**HIS CONSTRUCTORS, LLC**  
**Daily Excavation / Trenching Log**

Designated Competent Person: _____

Date: _____ Time: _____ Signature: _____

Weather: _____ Project: _____

Was Utility Protection Notified?

Yes _____ No _____

Soil Classification: Were visual test made:

Yes _____ No _____

Were physical test made:

Yes _____ No _____

If yes what type?

Thumb Penetration _____

Plasticity _____

Dry Strength _____

Pocket Penetrometer _____

Type A = or >1.5 T/sq.ft : Type B > 0.5 but < 1.5 T/sq. ft. : Type C = or < 0.5 T/sq.ft.

Soil Type: Stable Rock _____ Type A _____ Type B _____ Type C _____

Purpose of Excavation / Trench:

Drainage _____

Utility _____

Tank _____

Remediation _____

Pipe Installation _____

Other _____

Surface Encumbrances:

Yes _____

No _____

If yes, what type? _____

Water Conditions:

Wet _____

Dry _____

Submerged _____

Freely Seeping _____

Hazardous Atmosphere Exists:

Yes _____

No _____

(If yes follow safe work permit procedures. Complete entry permit and monitor)

Is excavation / trenching exposed to vehicular traffic (exhaust emissions)

Yes _____

No _____

(If yes follow confined space entry procedures policy, Complete entry permit and monitor)

Excavation / Trench measurements:

Depth _____

Length _____

Width _____

Is Ladder within 25 feet of all workers?

Yes _____

No _____

Is excavated material staged 2 feet or more from edge of excavation/trench?

Yes _____

NO _____

Are employees exposed to vehicular traffic?

Yes _____

No _____

(If yes, high visibility safety vests are required)

Are other utilities protected?

Yes _____

No _____

Are sewer or natural gas lines exposed?

Yes _____

No _____

If yes refer to confined space entry procedures

Periodic Inspections:

Yes _____

No _____

Did employees receive training in excavating?

Yes _____

No _____

Signature _____

Date _____



**Appendix E**  
**Training Documentation**

**HIS CONSTRUCTORS SITE SAFETY ORIENTATION**

I, _____ acknowledge that I have attended a Site Safety Orientation Training session conducted by _____, a H.I.S. designated representative. This training included receiving a copy of the general site safety rules. I agree to abide by these rules and I also understand that failure to follow these rules may result in disciplinary action, up to and including termination from the project.

_____  
Signature

_____  
Date

_____  
Job Title

_____  
Company Name

**HIS Constructors Representative**

_____  
Signature

_____  
Date

_____  
Job Title

This form must be signed and returned to the Site Safety Coordinator. A copy of this form will be kept on file in the HIS main office and job trailer.

TABLE 1

JOB SITE HEALTH AND SAFETY INSPECTION FORM

## Job Site Health & Safety Inspection Form

Project: _____

Address: _____

Contractor: _____

Job Site Health & Safety Inspection Form	YES	NO
All Personnel entering the Special Soils Area or SSA Storage Area are wearing the proper ppe		
Emergency Phone Number Posted		
Safety Signs Posted		
First Aid Kit Available		
Employees Informed of Accident/Incident Procedures		
Walking/Working Surfaces are Free From Debris and Moisture		
Aisles and Stairways Adequately Lighted and Cleaned		
Materials Stored Safely		
Holes Barricaded and Perimeters Guarded		
Sanitary Facilities Adequate and Clean		
Tools Properly Grounded		
Cords, Plugs and Receptacles in Good Condition		
Fire Extinguishers Readily Available		
Employees Instructed in Fire Procedures		
Ladders and Scaffolds in Good Condition/Railings in Place		
Welding Areas Properly Shielded and Ventilated		
Welding Cables and Hoses in Good Condition		
Gas Cylinders Secured and Stored Properly		
Personal Protective Equipment Issued and in Use		
Hard Hats Required and in Use		
Equipment in Good Repair and Properly Guard		
Hazard Communication Standard Requirements Met		

Comments:

_____  
_____  
_____

Report Filed By: _____

Date: _____

Time: _____

TABLE 2  
SAMPLE TAILGATE SAFETY MEETING

## **Trenches - Safety Basics**

Exposed trench faces that are more than five feet high must be stabilized by either shoring, sloping the face of the wall back to a stable slope or some equivalent method to prevent cave-ins.

If the trench is excavated in hard, compact soil materials more than five feet in depth, the wall must be supported. If the walls of a trench are less than five feet deep and in soft or unstable soil materials, then trench boxes, shoring, sheeting, bracing, sloping or other equivalent methods are required to prevent the trench wall from collapsing. Trench walls above five feet in height may be sloped instead of shored.

Materials used for trench boxes, sheeting, sheet piling, bracing, shoring and underpinning should be in good condition, and should be installed so that they provide support that is effective to the bottom of the trench. Timber must be sound and free from large or loose knots. Vertical planks in the bracing system should be extended to an elevation no less than one foot above the top of the trench face.

When employees are required to be in trenches that are four feet or more in depth, an adequate means of exit, such as a ladder or steps, must be provided and located so that no more than 25 feet of lateral travel is required for a person to reach the exit structure. The trench should be braced and shored during excavation and before personnel are allowed entry.

Cross braces and trench jacks should be secured in true horizontal positions and spaced vertically in order to prevent trench wall material from sliding, falling or otherwise moving into the trench. Portable trench boxes (also called sliding trench shields) or safety cages may be used to protect employees instead of shoring or bracing. When in use, these devices must be designed, constructed and maintained in a manner that will provide at least as much protection as shoring or bracing, and extended to a height of no less than six inches above the vertical face of the trench.

Also, remember to call before you dig.!!

## Heat Related Illness

Heat cramps, heat exhaustion, and heat stroke are conditions caused by over exposure to heat. The heat and relative humidity both are important. If the temperature is 85 degrees and the humidity is 50% then it will affect the body as though it were 90 degrees.

### Heat Cramps:

Heat cramps are the least severe. They are painful muscle spasms and usually occur in the legs or abdomen. To care for heat cramps, have the victim rest in a cool place. Give cool water to drink. Usually rest and fluids are all the person needs to recover. You may also want to lightly stretch the muscle and gently massage the area. The victim should not take salt tablets or salt water – they can make the condition worse.

### Heat Exhaustion:

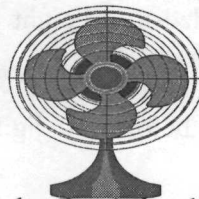
Heat exhaustion is more severe. Its signals include cool, moist, pale, or flushed skin; headache; nausea; dizziness; weakness; and exhaustion.

### Heat Stroke:

Heat stroke is the least common but most severe. It most often occurs when people ignore the signals of heat exhaustion. Heat stroke develops when the body systems are overwhelmed by heat and begin to stop functioning. Heat stroke is a serious medical emergency. The signals are red, hot, dry skin; changes in consciousness; rapid, weak pulse; and rapid, shallow breathing.

When you recognize a heat-related illness in its early stages you can usually reverse it.

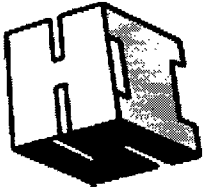
- Get the victim out of the heat.
- Loosen any tight clothing.
- Apply cool, wet clothes to the skin.
- Fan the victim.
- If the victim is conscious, give them cool water to drink. Don't let them drink too quickly – about one glass every 15 minutes.
- Let them rest in a comfortable position, and watch carefully for any changes in condition.
- The victim should not resume normal activity that day.



Call for an ambulance if the victim:

- Refuses water,
- Vomits, or
- Or starts to lose consciousness.





**HIS CONSTRUCTORS, LLC  
DAILY SAFETY MEETING**

<b>SUBJECT: PROJECT SAFETY MEETINGS</b>	NUMBER
	<b><u>PAGE 1 of 1</u></b>
	DATE PUBLISHED 4/20/00

Safety Topics Presented:

- ☐ PPE: Hardhat, Safety Glasses, High Visibility Vests, Safety Shoes, Gloves as necessary,,
- ☐ Chemical Hazards: Volitile Organic Compounds,
- ☐ Physical Hazards: Excavation and Trenching, Traffic, Cold Temperatures, Water in Trench  
Slips Trips, and Falls
- ☐ Emergency/Evacuation Procedures: _____

Weather: _____

_____

_____

Attendees (names printed):

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Meeting Conducted by:

Name Printed  
070047

Job Number

Signature

Date



TABLE 3

CHEMICAL HAZARD INFORMATION / HEALTH HAZARD INFORMATION

Table 3

## Chemical Hazard Information / Health Hazard Information

Contaminant	TLV	OSHA (PEL)	IDLH	Action Level	ROUTES OF ENTRY	SYMPTOMS	TARGET ORGANS
Acetone	500 PPM	1000 PPM	2500 PPM	NA	INHALATION INGESTION CONTACT	Irritate nose, eyes, headache, dizzy, CNS depression	Eyes, skin, resp system, CNS
1,1-Dichloroethene	5 PPM	none	Ca	NA	INHALATION INGESTION CONTACT	Eye irritant, dizzy, headache, naus.	CNS, Liver, Kidney
1,2-Dichloroethene	200 PPM	200 PPM	1000 PPM	NA	INHALATION INGESTION CONTACT	Eye irritant, CNS depression, organ damage	CNS, Liver, Kidney, lungs, Skin
Ethylbenzene	100 PPM	100 PPM	800 PPM	NA	INHALATION INGESTION CONTACT	Irritates eyes, skin, vomit, dermatitis, burning sensation	Eyes, Skin, Resp system, CNS
Methylene Chloride	50 PPM	25 PPM	2300 PPM (Ca)	NA	INHALATION ABSORPTION INGESTION CONTACT	Irritate Eyes, Skin, Fatigue, Naus, Weakness, Light Headedness	Eyes, Skin, CNS, CVS
Methyl Ethyl Ketone (2-Butanone)	200 PPM	200 PPM	3000 PPM	NA	INHALATION INGESTION CONTACT	Irritate Eyes, Skin, Nose, headache, dizziness, vomit	Eyes, Skin, Respiratory System, CNS
Methyl Isobutyl Ketone (Hexone)	50 PPM	100 PPM	500 PPM	NA	INHALATION INGESTION CONTACT	Irritates Eyes, skin, muc membrane, headache	Eyes, Skin, resp. sys.
Tetrachlorethene	25 PPM	25 PPM	150 PPM (Ca)	NA	INHALATION ABSORPTION INGESTION CONTACT	Irritate Eyes, Nose, Throat, Nau. Dizzy, Liver Damage	Eyes, Skin, Liver, Resp Sys. Kidneys, CNS
Toluene	100 PPM	200 PPM	500 PPM	NA	INHALATION INGESTION CONTACT	Irrt eyes, skin, vomit, dermatitis, burning sensation	Eyes, Skin, Resp system, CNS
1,1,1-Trichloroethane	350 PPM	350 PPM	2000 PPM (CA)	NA	INHALATION INGESTION CONTACT	Irritate eyes, skin, headache, CNS depress, liver damage	Eyes, Skin, CNS, CVS, Liver
1,1,2-Trichloroethane	10 PPM	10 PPM	100 PPM (CA)	NA	INHALATION ABSORPTION INGESTION CONTACT	Irritate eyes, skin, headache, CNS depress, liver damage	Eyes, Skin, CNS, Liver, Kidneys
Trichloroethene	50 PPM	100 PPM	1000 PPM (CA)	NA	INHALATION ABSORPTION INGESTION CONTACT	Irritate eyes, skin, headache, CNS depress, liver damage	Eyes, Skin, CNS, Liver, Kidneys
Vinyl Chloride	1 PPM	1 PPM	NA	NA	INHALATION CONTACT	Weak, Abdom pain Bleeding, liver damage	Liver, CNS, Blood, resp system
Xylene (Total)	100 PPM	100 PPM	900 PPM	NA	INHALATION INGESTION CONTACT	Irrt eyes, skin, vomit, dermatitis, burning sensation	Eyes, Skin, Resp system, CNS

Contaminant	TLV	OSHA (PEL)	IDLH	Action Level	ROUTES OF ENTRY	SYMPTOMS	TARGET ORGANS
Bis (2-ethylhexyl) phthalate	5 mg/m ³	5 mg/m ³	5000 mg/m ³	NA	Inhalation, Ingestion, Contact	Irr. Eye, Mucous Mem, liver damage, teratogen	Eyes, Res Sys, liver, CNS, GI
Di-n-butyl phthalate	5 mg/m ³	5 mg/m ³	4000 mg/m ³	NA	Inhalation, Ingestion, Contact	Irr. Eye, upper Resp. stomach	Eyes, Resp sys, GI
1,2-Dichlorobenzene (o-dichlorobenzene)	25 ppm	50 ppm Ceiling	200 ppm	NA	Inhalation, Absorbtion, Ingestion, Contact	Irrt. Eyes, nose: Liver, Kidney Damage, Skin Blisters	Eyes, Skin, Resp sys, liver, kidneys
Diethyl phthalate	5 mg/m ³	None	N.D.	NA	Inhalation, Ingestion, Contact	Irr.eyes, skin, nose, throat: head diss,nausea, pain	Eyes, skin, resp sys, CNS, PNS
Isophorone	4 ppm	25 ppm	200 ppm	NA	Inhalation, Ingestion, Contact	Irr. Eyes,nose, throat; head, nau, dizz, fati, mal, narco,derm	Eyes, Skin, resp sys, CNS, liver, Kidneys
Naphthalene	10 ppm	10 ppm	250 ppm	NA	Inhalation, Absorbtion, Ingestion, Contact	Irr.Eyes, head, conf, excitement, mal, nau, ab pain, sweating, jaun, renal shutdown	Eyes, skin, blood, liver, kidneys, CNS
Phenol	5 ppm	5 ppm	250 ppm	NA	Inhalation, Absorbtion, Ingestion, Contact	Irr eyes, nose, throat, musc ache, pain dark urine, skin burns liver	Eyes, Skin, resp sys, liver, kidneys
Antimony	.5 mg/m ³	.5 mg/m ³	50 mg/m ³	NA	Inhalation, Ingestion, Contact	Irr eyes, skin, nose, throat, mouth dizz, head, nau, vomit, diarr, insom	Eyes, skin, resp sys, CVS
Arsenic	.002 mg/m ³	.01 mg/m ³	5 mg/m ³	.005 mg/m ³	Inhalation, Absorbtion, Ingestion, Contact	Ulceration nase septum, GI dis, resp irr,	Liver, kidneys, skin, lungs,lymp sys
Barium	.5 mg/m ³	.5 mg/m ³	50 mg/m ³	NA	Inhalation, Ingestion, Contact	Irr eyes, skin, upper resp, gastroenteritis, musc spasm	Eyes, skin, resp, sys, heart, CNS
Beryllium	.0005 mg/m ³	.002 mg/m ³	4 mg/m ³	NA	Inhalation Contact	Berylliosis, chest pain, cough, clubbing of fingers, irr eyes	Eyes, skin, resp. sys
Cadmium	.01 mg/m ³	.005 mg/m ³	9 mg/m ³	.0025 mg/m ³	Inhalation Ingestion	Pulm edema, cough, chest tight, headache, chills, naus, vomit	Resp sys, kidneys, prostrate, blood
Chromium VI	.01 mg/m ³	.001 mg/m ³	250 mg/m ³	NA	Inhalation, Ingestion, Contact	Irr eyes, skin, lungs,	Eyes, skin, resp, sys.

Contaminant	TLV	OSHA (PEL)	IDLH	Action Level	ROUTES OF ENTRY	SYMPTOMS	TARGET ORGANS
Lead	.05 mg/m ³	.05 mg/m ³	100 mg/m ³	.03 mg/m ³	Inhalation Ingestion Contact	Weak, insom, facial pallor, abd pain, anemia, irr eyes	Eyes, GI tract, CNS, kidneys, blood
Magnanese	.2 mg/m ³	5 mg/m ³ (ceiling)	500 mg/m ³	NA	Inhalation Ingestion	Parkinson's, insom, confusion, metal fume fever, dry throat, edema	Resp sys, CNS, blood Kidney
Silver	.01 mg/m ³	.01 mg/m ³	10 mg/m ³	NA	Inhalation Ingestion Contact	Blue-gray eyes, nasal septum, throat, skin irr, GI	Naal septum, skin eyes
Tin	2 mg/m ³	2 mg/m ³	100 mg/m ³	NA	Inhalation Contact	Irr eyes, skin, resp sys	Eyes, skin, resp sys
Vanadium	.05 mg/m ³	.5 mg/m ³	35 mg/m ³	NA	Inhalation Ingestion Contact	Irr eye, skin, throat, grrn tongue, met taate	Eyes, skin, resp sys
Zinc (Zinc Oxide)	5 mg/m ³	5 mg/m ³	500 mg/m ³	NA	Inhation	Metal fume fever, fever, met taste	Reap sys
Cyanide (Total)	5 mg/m ³	5 mg/m ³	25 mg/m ³	NA	Inhalation Absorption Ingestion Contact	Irr eyes, skin headache nau, confusion, vomit,	Eyes, skin CVS, CNS, Thyroid, blood5
Aroclor 1016	.001 mg/m ³	NK	NA	NA	Inhalation Absorption Ingestion Contact	Irr eyes, chloracne, liver damage, repro effects	Skin, eyes, liver, repro system
Aroclor 1221	1 mg/m ³	NK	NA	NA	Inhalation Absorption Ingestion Contact	Irr eyes, chloracne, liver damage, repro effects	Skin, eyes, liver, repro system
Aroclor 1232	1 mg/m ³	NK	NA	NA	Inhalation Absorption Ingestion Contact	Irr eyes, chloracne, liver damage, repro effects	Skin, eyes, liver, repro system
Aroclor 1242	1 mg/m ³	1 mg/m ³	5 mg/m ³	NA	Inhalation Absorption Ingestion Contact	Irr eyes, chloracne, liver damage, repro effects	Skin, eyes, liver, repro system
Aroclor 1248	1 mg/m ³	NK	NA	NA	Inhalation Absorption Ingestion Contact	Irr eyes, chloracne, liver damage, repro effects	Skin, eyes, liver, repro system
Aroclor 1254	.5 mg/m ³	.5 mg/m ³	5 mg/m ³	NA	Inhalation Absorption Ingestion Contact	Irr eyes, chloracne, liver damage, repro effects	Skin, eyes, liver, repro system
Aroclor 1260	.5 mg/m ³	NK	NA	NA	Inhalation Absorption Ingestion Contact	Irr eyes, chloracne, liver damage, repro effects	Skin, eyes, liver, repro system